

## CLAIMS

1 We claim:

- 2 ~~1/23/99~~ 1. A method for determining down-regulation of gene expression of a human  
3 immunodeficiency virus (HIV) coreceptor, comprising the steps of:
- 4 a. culturing H9 T lymphoma or U937 promonocyte cells;
- 5 b. electroporating said H9 or said U937 cells to introduce Product R into said  
6 H9 or said U937 cells;
- 7 c. culturing said electroporated H9 or said U937 cells;
- 8 d. preparing total RNA from said H9 or said U937 cells after the step c;
- 9 e. reverse-transcribing the mRNA of said HIV coreceptor by a reverse  
10 transcription-polymerase chain reaction (RT-PCR); and
- 11 f. measuring said RT-PCR product.

1 2. The method of claim 1, wherein said HIV coreceptor is CCR5.

1 ~~1/23/99~~ 3. The method of claim 1, wherein said step f further comprises the step of  
2 electrophorizing said RT-PCR.

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1 4. The method of claim 1, wherein said electroporated H9 or U937 cells are  
2 cultured for about 14 hours to about 18 hours.

1 5. A method for reducing the amount of HIV coreceptor CCR5 in a patient  
2 having HIV infection, comprising parenterally administering an effective HIV coreceptor  
3 CCR5 reduction amount of Product R to said patient.

1 6. A method for preventing a patient from being infected by HIV, comprising  
2 parenterally administering an effective HIV coreceptor CCR5 reduction amount of Product R  
3 to said patient.

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